

AY-B85x0

Indoor Optical Fingerprint 1:N with RFID Reader

Datasheet



Introduction

The AY-B85x0 is a high-quality fingerprint & card reader for indoor applications, which is ideal for any project by providing excellent performance while remaining cost-effective. With a capacity of up to 7000¹ fingerprint templates and a built-in 13.56 MHz MIFARE or 125 kHz (EM) credential reader, it enables higher security by dual factor authentication (Fingerprint + Card). When used with the AxTraxNG™ Server with integrated template management and distribution module, fingerprint template enrollment can be done concurrently on multiple workstations. Rosslare's standalone RosslareBio 8000 management software is perfect for interfacing with existing third-party systems.

General Description

The AY-B85x0 fingerprint and MIFARE (13.56 MHz) or EM (125 kHz) card reader, features a 500-DPI optical sensor, with built-in memory for up to 7000 FP templates. With TCP/IP, RS-485, and Wiegand 26-Bit connectivity, the AY-B85x0 can be used with any Wiegand supported access control system.

This indoor reader features a scratch-resistant FP surface capable of reading both wet and dry fingers, while the high-speed CPU can quickly scan a large list of templates. Each template is assigned a biometric User ID by the controller. When a fingerprint is read and the biometric features are verified as valid, the ID is sent in Wiegand 26-Bit format. The reader does not process the access rights, as this is done on the host controller.

¹Loading more than 3000 templates is not recommended due to extended response time

Templates and reader settings are managed by TCP/IP connection to the AY-B85x0 using the AxTraxNG™ integrated biometrics features. Alternatively, the RosslareBio 8000 standalone management software for Windows OS interfaces with third-party systems.

Main Features

- Small compact design, for indoor use
- Capacity for up to 7000 templates
- Combined RFID card and fingerprint for higher security with dual factor applications
- Built-in TCP/IP, RS-485, and Wiegand connectivity
- 50,000 non-volatile event log
- Wide thermal operating range (-20°C to 60°C)
- Built-in buzzer and LED indication
- Modern design that blends into almost any architectural challenge

Software Solutions

- AxTraxNG: Easy to install and operate using Rosslare AxTraxNG™ Server for Windows for managing user data and template distribution.
- RosslareBio 8000 Management Software: Standalone management software that supports 8000 biometric reader series for user enrollment, reports, and more and allows third-party interfacing.

Specifications

FINGERPRINT IMAGING SYSTEM	
Technology	Optical (sealed optical chamber, scratch-resistant glass, wet or dry finger)
Image Resolution	500 DPI
Scan Area	22 x 18 mm (0.9 x 0.7 in.)
TEMPLATE CAPACITY & SPEED	
Capacity	Up to 7000 ¹ biometric templates on reader
Time 1: N	1000 templates: 1-2 sec 1000 – 3000 templates: 2-4 sec
CONTACTLESS CARD TECHNOLOGY	
RFID	Built-In 13.56 MHz MIFARE or 125 kHz EM credential reader
ENVIRONMENTAL RANGE	
Environment	Indoor installation
Temperature	-20° to 60°C (-4°F to 140°F)
Humidity	Up to 90% RH
COMMUNICATON & PERFORMANCE	
CPU	32-bit ARM core
Communication Ports	Wiegand 26-Bit, RS-485, TCP/IP (10/100 Mbps), mini-USB 2.0
Authentication	Fingerprint Only, Fingerprint + Card, Card Only
PHYSICAL CHARACTERISTICS	
Dimensions (L*W*H)	145 x 55 x 37 mm (5.7 x 2.2 x 1.5 in.)
Net Weight	400 g (14.1 oz)
POWER SUPPLY REQUIREMENTS	
Power	+12 VDC regulated power supply
STANDARDS COMPLIANCE	
Device Certifications	CE & FCC
ORDER MODELS	
AY-B8520 – With 125 kHz EM RFID card reader	
AY-B8550 – With 13.56 MHz MIFARE card reader	

¹ Loading more than 3000 templates is not recommended due to extended response time.



MIFARE® DESFire®, MIFARE Plus®, MIFARE Classic® and MIFARE Ultralight® are registered trademarks of NXP B. V. | All product names, logos, and brands are property of their respective owners.

DISCLAIMER: The data contained within Rosslare's materials or documentation is intended to provide only general information about products available for purchase from Rosslare Enterprises Ltd. and its associated companies ("Rosslare"). Reasonable efforts have been made to ensure the accuracy of this information. However, it might contain typographic errors, inaccuracies, or omissions that may relate to product descriptions, visual pictures, specifications, and other details. All technical specifications weights, measures and colors shown, are best approximations. Rosslare can not be held responsible and assumes no legal liability for the accuracy or completeness of the information provided. Rosslare reserves the right to change, delete, or otherwise modify the information, which is represented, at any time, without any prior notice.

© 2021 Rosslare Enterprises Ltd. All rights reserved.

For more information regarding support, visit <https://support.rosslaresecurity.com/>.